49. A method of isolating immunoglobulins from a sample using a peptide comprising:

(a) contacting a sample comprising immunoglobulins with at least two peptides to allow for immunoglobulin/ peptide interaction; and

(b) isolating the resulting peptide/immunoglobulin conjugates, wherein the peptide has an amino acid sequence selected from the group consisting of:

(a) A R L I; (portion of SEQ ID NO: 2, residues 47-50)

(b) H A R L; (portion of SEQ ID NO: 2, residues 91-94)

(c) F A R L; (portion of SEQ ID NO: 2, residues 264-267)

(d) A R L ; and

(e) A R L C; (SEQ ID NO: 12)

wherein the peptide comprises at least one and up to 25 additional amino acids flanking either the 3' or 5' end of the peptide.

a14

REMARKS

Applicants submit this Amendment to indicate the insertion point for the substitute Sequence Listing filed concurrently herewith. Applicants respectfully request examination on the merits of this application.

Receipt of the initial Office Action on the merits is awaited.

Respectfully submitted,

22 May 2002
Date

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Versions with Markings to Show Changes Made

IN THE SPECIFICATION:

Please replace the following paragraphs with the following rewritten paragraphs. The changes are shown explicitly in the attached "Version with Markings to Show Changes Made."

Please replace the paragraphs beginning on page 5 at lines 13 with the following paragraph:

The present invention is directed to a family of novel repeat sequences of NTP having the consensus sequence of "H A R L I L (portion of SEQ ID NO: 2, residues 46-51)" and homologs thereof. Harlil peptides encompassed by the invention include, but are not limited to, "H A R L I L (portion of SEQ ID NO: 2, residues 46-51)," "H A R L C L (portion of SEQ ID NO: 2, residues 91-96)," "H H A R L C L (portion of SEQ ID NO: 2, residues 90-96)," "H A R L (portion of SEQ ID NO: 2, residues 91-94)," "M F A R L I L (portion of SEQ ID NO: 2, residues 263-269)," "A R L I L (portion of SEQ ID NO: 2, residues 265-269)," "H A R L I F (portion of SEQ ID NO: 2, residues 292-297)," "H H A R L I F (portion of SEQ ID NO: 2, residues 291-297)," and homologs and binding partners thereof. This group of NTP peptides, and homologous peptides, are collectively referred to as "Harlil peptides."

Please replace the paragraph beginning on page 8 at line 6 with the following rewritten paragraph:

Figure 1: Shows the complete NTP sequence (SEQ ID NOS 1 & 2) and the location of the Harlil sequences within the complete NTP sequence (de la Monte et al., *J. Neuropathol. Exp. Neurol., 55:*1038-1050 (1996));

Please replace the paragraph beginning on page 8 at line 30 with the following rewritten paragraph:

(a) 45-51 T H A R L I L (portion of SEQ ID NO: 2)

(b) 90-96 H H A R L C L (portion of SEQ ID NO: 2)

(c) 263-269 M F A R L I L (portion of SEQ ID NO: 2)

(d) 292-296 H H A R L I F (portion of SEQ ID NO: 2)

See Fig. 1.

The invention encompasses peptides having the sequence of any of regions (a), (b), (c), (d), or homologs of these (including but not limited to "H A R L M L")(SEQ ID NO: 3). The Harlil peptides can also have additional amino acid residues before or after the Harlil sequence on linker peptides. The additional amino acid residues or linker peptides may be those found in the NTP sequence before and after the Harlil sequence. For example, the amino acid residues G I T G M C T (portion of SEQ ID NO: 2, residues 39-45) occur before residue 46 and the amino acid residues Y F F L V (portion of SEQ ID NO: 2, residues 52-56) occur after amino acid 50 in the NTP sequence. Thus, a Harlil peptide encompassed by the invention includes the NTP peptide G I T G M C T H A R L I L Y F F L V (portion of SEQ ID NO: 2, residues 50-56). For the Harlil peptides recited in (b), (c), and (d), the additional amino acid residues are those that flank the Harlil sequence in the NTP sequence. However, there is no evidence that the flanking sequences serve as other than a linker. Preferably, the Harlil peptide having additional amino acid residues does not exceed 25 total amino acid residues in length.

Please replace the paragraph beginning on page 14 at line 17 with the following rewritten paragraph:

If NTP overproduction contributes to AD and related disease neurodegenerative disease pathology, then the production or folding of the NTP protein might be inhibited, and/or the polymerization or the interaction of NTP with other components might be prevented, with therapeutics based on the HARLIL (portion of SEQ ID NO: 2, residues 46-51) model. For example, if by administration of one or more Harlil peptide or Harlil mimetics, NTP aggregation, or folding or assembly, could be inhibited, one might expect enhanced protease degradation of NTP: Thus one might accomplish removal of excess NTP by administration of one or more Harlil peptide or Harlil mimetics. Alternately a Harlil peptide or Harlil mimetic therapeutic may be useful to control the interaction of NTP monomer or aggregate with other components of the neurodegenerative cascade.

Please replace the paragraph beginning on page 16 at line 20 the following rewritten paragraph:

The following Harlil sequences were synthesized (Synpep, Dublin CA) and conjugated to maleimide activated Rabbit IgG (Jackson Immunoresearch, West Grove PA) and assessed for their NTP immunoreactivity. A linker was added, which is a repetition of the protein sequence occurring before and after the 90-96 H H A R L C L (portion of SEQ ID NO: 2) sequence of NTP. (SEQ ID NOS 4-11, respectively, in order of appearance)